

What is claimed is:

1. A dispensing system comprising

a progressive cavity pump;

a nozzle;

a conduit in flow communication between the progressive cavity pump and the nozzle;

a valve controlling the flow communication between the progressive cavity pump and the nozzle;

a pressure sensor in pressure communication with the flow between progressive cavity pump and the valve;

a motor coupled to the progressive cavity pump;

a controller in signal communication with the pressure sensor and with the motor, the controller being responsive to pressure input from the pressure sensor to control the motor.

2. The dispensing system of claim 1, the controller being responsive to a preselected high pressure to stop motor and a preselected low pressure to start the motor.

3. The dispensing system of claim 1, the conduct being resilient in the Operating range of the progressive cavity pump.

4. The dispensing system of claim 1, the controller being responsive to the pressure sensed by the pressure sensor as a function of time to control the speed of the motor.

5. The dispensing system of claim 1, the valve including an actuating

trigger.

6. The dispensing system of claim 1 further comprising  
a source of compressed air in communication with the nozzle and controlled  
by the valve.

7. The dispensing system of claim 1 further comprising  
a drum ram, the progressive cavity pump being on the drum ram.

8. The dispensing system of claim 1, the progressive cavity pump  
including a stator of PTFE filled with wear resistant material.

9. A dispensing system comprising

a plurality of progressive cavity pumps;

a mixer in communication with the plurality of progressive cavity pumps;

a nozzle;

5 a conduit in flow communication between the mixer and the nozzle;

a valve controlling flow communication between the mixer and the nozzle;

a pressure sensor in pressure communication with the flow between at least  
one of the progressive cavity pumps and the valve;

10 a plurality of motors, the motors being coupled with the progressive cavity  
pumps, respectively;

a controller in signal communication with the pressure sensor and with the  
motors, the controller being responsive to pressure input from the pressure sensor to  
control the motors.

10. The dispensing system of claim 9, the conduit being resilient in the  
operating pressure range of the progressive cavity pumps.

11. The dispensing system of claim 9, the controller being responsive to the pressure sensed by the pressure sensor as a function of time to control the speed of the motors.

12. The dispensing system of claim 9, the valve including an actuating trigger.

13. The dispensing system of claim 9, the controller being responsive to a preselected high pressure signal to stop the motors and a preselected low pressure signal to start the motors.

14. The dispensing system of claim 9, the motors being set to drive at preselected proportional speeds by the controller.

15. The dispensing system of claim 9 further comprising a source of compressed air in communication with the nozzle and controlled by the valve.

16. The dispensing system of claim 9 further comprising a first drum ram, the first progressive cavity pump being on the first drum ram; a second drum ram, the second progressive cavity pump being on the second drum ram.

17. The dispensing system of claim 9, the progressive cavity pumps each including a stator of PTFE filled with wear resistant material.

18. A dispensing system comprising  
a first progressive cavity pump;  
a second progressive cavity pump;

a first pump fluid line in flow communication with the first pump;  
5 a second pump fluid line in flow communication with the second pump;  
a manifold releasably coupled with the first pump fluid line and the second  
pump fluid line, the manifold including a first passage in flow communication with the  
first pump fluid line and a second passage in flow communication with the second  
pump fluid line, the second passage extending into the first passage and including a  
10 discharge concentrically within the first passage;

a mixer in communication with the first and second passages.

19. The dispensing system of claim 18 further comprising  
valves in the first and second pump fluid lines, respectively.

20. The dispensing system of claim 19 further comprising  
a two position actuator coupled with the valves with a fully open position and  
a fully closed position.

21. The dispensing system of claim 20 further comprising  
a first variable speed and controlled rotational displacement motor including a  
first motor controller and a first encoder, coupled with the first progressive cavity  
pump;

5 a second variable speed and controlled rotational displacement motor  
including a second motor controller and a second encoder, coupled with the second  
progressive cavity pump.

22. The dispensing system of claim 20, the first and second valves  
operating together, the first and second motors operating at preselected proportional  
speeds.

23. A dispensing system comprising  
a plurality of progressive cavity pumps;  
a plurality of motors, the motors being coupled to the progressive cavity  
pumps, respectively;  
5 a signal generator;  
a controller in signal communication with the motors, the controller including a  
timer to time the duration since the last running of the motors and activate the signal  
generator based on a preset period following running of the motors, the timer being  
reinitialized with each running of the motors.

24. A dispensing system maintaining a virtual stall pressure during  
dispensing, comprising  
a progressive cavity pump having an outlet;  
a motor coupled with the progressive cavity pump;  
5 a pump control system including a torque control to the motor, a motion  
sensor on the motor, a memory of motor torque vs. pump output pressures for a  
plurality of motor speeds and a preset maximum pump output pressure, motor  
torque being limited by the pump control system at below the preset maximum pump  
output pressure as determined from the memory.

25. The dispensing system of claim 24 further comprising  
a pump output pressure sensor for calibration, the motion sensor on the  
motor being an encoder.

26. The dispensing system of claim 24 further comprising  
a valve controlling the pump outlet.

27. The dispensing system of claim 24, the torque control being a PWM amplifier.